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2008 Final Report

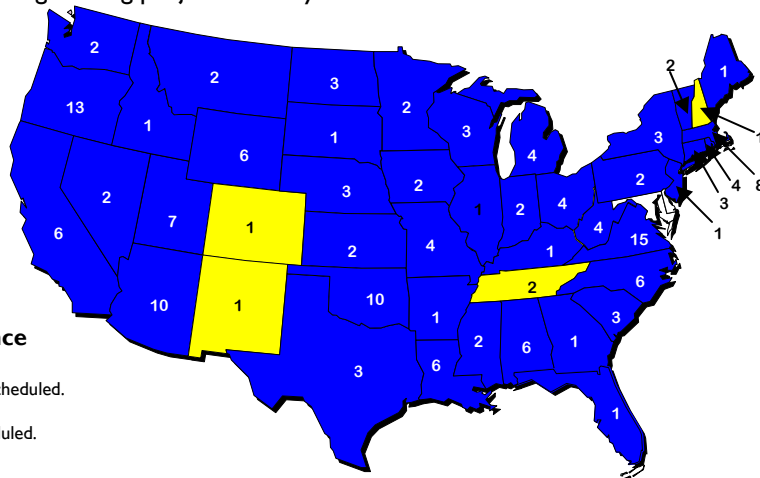
Issue 3

November 2008





From the Director

The year 2008 was a busy one for the NDCSMC, which also translates to heavy workloads in the field offices. The 225 completed requests for assistance during fiscal year 2008 were 40% higher than any previous year for the NDCSMC. We will continue to do what we can do to assist you in the planning, design, and construction of complex engineering projects in the year ahead!



FY-08 NDCSMC Assistance

-  Requests completed and/or scheduled.
-  Requests in progress or scheduled.



WinDAM Update



WinDAM, **Windows Dam Analysis Modules**, is a modular software application being developed under a joint effort among NRCS, Kansas State University and the Agricultural Research Service. It will be used for analyzing earthen embankments, including the potential to overtop during extreme rainfall events. WinDAM-A+ is an enhancement to the first of three modules that will comprise the WinDAM system.

The first module, WinDAM-A, addresses routing a flood hydrograph through a reservoir and the potential of vegetation or riprap to delay or prevent failure of the embankment during overtopping. WinDAM-A+ adds the erosion technology that is in the SITES program. This test version of WinDAM-A+ is available solely for testing and should not be used for hydrologic analysis or structural design purposes.

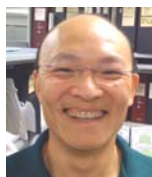
Volunteers from the State Office level and above are still needed to test WinDAM-A+. Because the program requires an input hydrograph and

includes utilities for importing the hydrograph from SITES 2005 (Water Resource Site Analysis Computer Program) or WinTR-20 (Computer Program for Project Formulation Hydrology), volunteers should be familiar with SITES 2005 and/or WinTR-20.

Volunteers interested in testing WinDAM-A+ should coordinate with their supervisor and State Conservation Engineer to assess their availability and have proper approval. All work will be performed on-site and through periodic teleconferences. No travel is anticipated for volunteer testers.

For information about development team expectations of volunteer testers, instructions on providing feedback, or other questions and comments regarding the software or Quick Start Guide, contact Morris Lobrecht, (817) 509-3775, morris.lobrecht@ftw.usda.gov, or Karl Visser, (817) 509-3763, karl.visser@ftw.usda.gov.

New Faces at the NDCSMC to assist you!



Phuc H. Vu, P.E. Design Engineer

Phuc joined the NDCSMC staff in November 2008. Phuc is a graduate of California Polytechnic University – Pomona with a B.S. in Agricultural Engineering. Phuc was the State Design Engineer for Oregon for the past 4.5 years. His work in Oregon included agrichemical handling facilities, solar powered stock watering, and manure storage ponds and structures. Prior to working in Oregon, he worked in California for 11 years as a field engineer in four field offices and two areas. Engineering experiences outside NRCS has been volunteering with Engineers Without Borders on school construction projects. He is a member of ASABE and is currently a registered civil engineer in Oregon and California.



David Pacheco, P.E. Construction Engr.

David joined the NDCSMC staff in October 2008. He came from New Mexico, where he served as State Conservation Engineer for the past 7 years. During this time, David also served as state program manager for the NRCS watershed programs (WF-08, WF-07, PL-06 and EWP). Other former positions include; Multi-state Design Team Leader, Albuquerque, NM; State Construction Engineer, Jackson, MS; and Project Engineer, Corrales, NM. David has a B.S. degree in Civil Engineering from New Mexico State University. He is a registered Professional Engineer in New Mexico. David has over 24 years of NRCS engineering experience. He brings a vast amount of design and construction experience to his new position.



Nancy Bradley Secretary

Nancy joined the NDCSMC staff May 12, 2008. Nancy has an extensive and wide array of administrative assistant experience in Civil Service and in the civilian sector. Nancy has spent the last 3.5 years in Iraq, first with the Corps of Engineers and then private companies in finance and as a General Office Manager. She has served our country for 11 years on active duty in aviation and also as a military recruiter. The rest of her military career was spent in the reserves and the Air Guard.



Best Wishes to Danny McCook, PE

Danny McCook, Geotechnical Engineer with the NDCSMC, retired on October 3, 2008, after 40 years of service to SCS/NRCS.

Danny started his career with SCS in March 1968 as a Civil Engineer at the Soil Mechanics Lab in Fort Worth. Danny authored numerous SCS and NRCS references and training materials currently in use, such as AWMFH, Appendix 10D. He taught and served as a mentor to several hundred engineers and represented NRCS by presenting more than 20 papers at professional conferences.

In 2000, Danny was recognized as the NRCS Engineer of the Year.

We will miss Danny's expertise, but wish him the best of luck in retirement and his second engineering career.

NDCSMC Geologist Recognized

Marie Marshall Garsjo, PG, was presented this year's Floyd T. Johnston award by the Texas Section of the Association of Environmental and Engineering Geologists (AEG).

The Floyd T. Johnston Award was established in 1982 in honor of the first Executive Director of the AEG Association. The award is presented to a Member for outstanding active and faithful service to the Association over a minimum period of 9 years to coincide with Johnston's tenure as Executive Director. Nominations for this award are made by the membership at-large to the Awards Committee. For nominations to be valid, they must be endorsed by 3 Members having different Section affiliations. The Committee chooses the candidate(s) from the nominations for consideration and selection by the President.



Congratulations to Marie Garsjo for being recognized as the 2007 Floyd T. Johnston Outstanding Engineering Geologist!

HEC RAS Workshop

Training in use of HEC-RAS water surface profile modeling software is provided to states, upon request, by a national cadre of skilled instructors.

One such session was held last July in Richmond, VA. Twenty students from eight states, NHQ, and an engineer from the Republic of Trinidad and Tobago. This is the first session that has been known to have been international in scope. The session promoted a free exchange of ideas from engineers with a wide variety of experience.

Mariella Pierre-Peschier, civil engineer from Trinidad and Tobago, had been having many problems with HEC-RAS. She talked about moving out of the floodplain, and how the laws work in a different country. Mariella said, "This course really fills a lot of gaps for me. I am very impressed with how comfortable the instructors are with the

model, and how much they enjoy what they are doing. I come from a developing country and it is interesting to see that a developed country like the U.S. has similar problems deciding where money should be spent and what projects should be done."

Summing up the training, Karl Visser said, "As a HEC-RAS instructor, it's satisfying to watch NRCS engineers acquire new skills that protect our natural resources and provide a safer environment for the public we serve." Jon Fripp feels that "the more we can include people from different areas and parts of the country, the better we are going to be able to come up

with better solutions based on their diverse experiences and viewpoints."

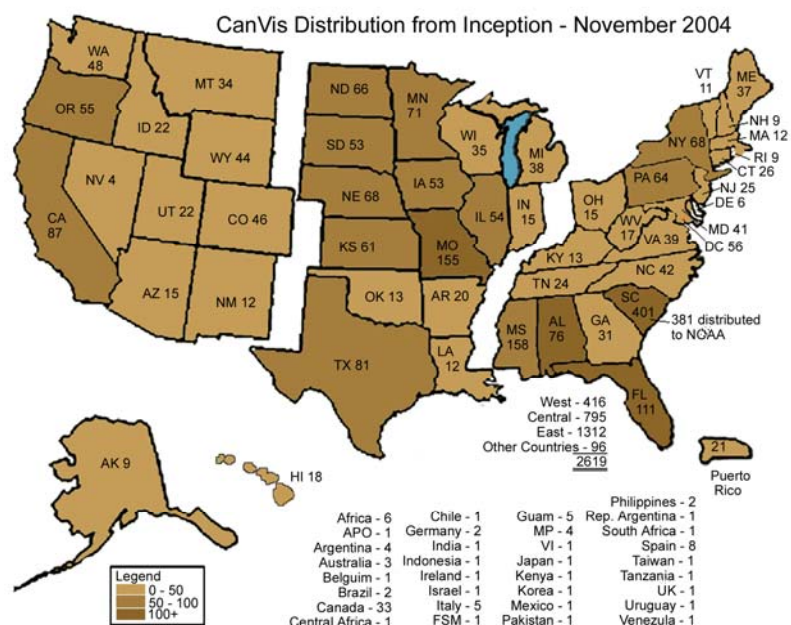
To schedule a session for your state, contact the HEC-RAS hydraulic modeling cadre via e-mail at ug-LO-OR-NRCS-HECRAS. In addition to the cadre training, the NDCSMC can provide more extensive design, analysis, and independent review for hydraulic models and associated structural designs.

CanVis being used Nationwide and Overseas

CanVis is visual simulation software developed jointly by NRCS and the US Forest Service. Since development of the original version of CanVis in 2004, there have been 2,619 copies requested and distributed. This map shows the total distribution since the start of distribution in 2004 through the end of FY 2008. Distribution has been made to NRCS, NGO's, Conservation Districts, researchers, and individuals. The full extent of installations is unknown since a copy may be ordered by one person and then installed on several computers.

The large number in South Carolina is due to the fact that NOAA Coastal Services Center has been promoting visual simulations, redistributing to coastal zone planning groups.

This software is CCE certified for use on NRCS computers. For more information on CanVis, contact Gary Wells at (402) 437-5178, ext. 4041, Gary.Wells@ne.usda.gov.





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VISION: Excellence in application of conservation engineering technology.

MISSION: To provide interdisciplinary technical support for design, construction, operation, and rehabilitation of complex engineering projects essential to resource conservation, environmental enhancement, and agricultural productivity.

PRODUCTS: Products are service based and include engineering technology development, technology transfer (e.g., workshops and formal training), independent reviews, and site specific soil mechanics testing and/or production design work in support of Field and State Office operations. Products also include expert consultation to NRCS Headquarters, Centers, State Offices, Field Offices, and Design Teams.

National Design, Construction, and Soil Mechanics Center - Design & Construction Staff

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Secretary: Nancy Bradley

Construction Engineer

Dennis Clute, PE
David Pacheco, PE

Design Engineers

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Mike Garsjo, PE
Morris Lobrecht, PE
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Stream Mechanics Engineer

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Structural Engineers

Lawrence F. Fragomeli, PE, SE
William Wallace, PE, SECB

Geologists

Marie M. Garsjo, PG
Craig Savelle, PG

Landscape Architects

Rosanna Brown, RLA
Gary Wells, RLA

Civil Engineering Technicians

Kathy Miller
Juan Renteria
Gregg Tompkins

Upcoming Workshops

NDSCMC is scheduled to provide assistance at the following workshops. More information and updates on the workshops can be obtained from the States in which the workshops are scheduled.

- | | | |
|----------------------------|-----------------|--------------------|
| • SITES Workshop | Weatherford, TX | December 9, 2008 |
| • SITES Workshop | Hillsboro, TX | December 11, 2008 |
| • Tank Design Workshop | Spokane, WA | February 2-6, 2009 |
| • Streambank Stabilization | Indiana | March 4-6, 2009 |
| • Streambank Stabilization | Colorado | April 20-24, 2009 |
| • Soil Bioengineering | Afton, WY | October 5-9, 2009 |

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